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The hypothesis of the
universality of life

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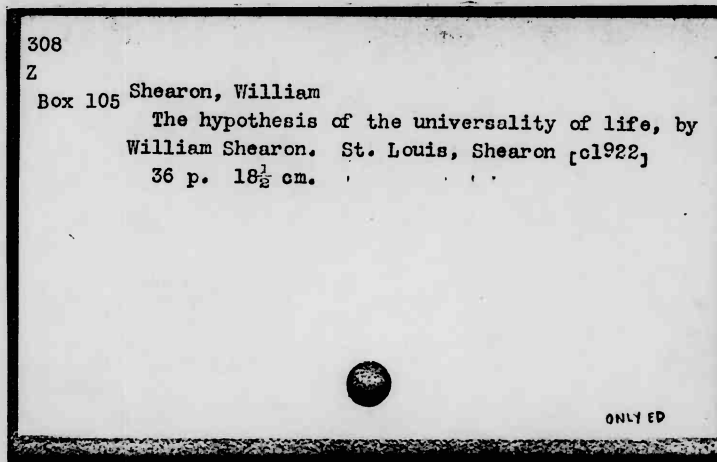
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THE HYPOTHESIS
OF THE
UNIVERSALITY OF LIFE

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THE HYPOTHESIS
OF THE
UNIVERSALITY OF LIFE

BY
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THE HYPOTHESIS OF
THE UNIVERSALITY OF LIFE.

MAN'S RECALCITRANCE.

We seem always to have been very much given to going quite out of our way to select involved explanations of natural phenomena, when any question was first presented, albeit much simpler explanations would have been more logical, and often nearer the truth. We should not say, however, that a logical explanation is always the right one.

Innumerable examples could be given of man's reluctance to grasp new ideas if they are in the least contrary to his spurious dignity, or if they do not fully accord with his petty desires. At some time in the past, it is conceivable that such an attitude may have assisted the human race to higher levels, but it must have been in the very remote past.

An unswerving and rigorous course, if half right, may have been more or less successful, when another, possibly nearer the right one, but pushed with less determination, may have failed entirely. The man who struggles in the water may suddenly learn to swim out of danger, while the one who pursues the inactive policy may learn only to float. Thus considered, the active course might have been an aid to him. However low its order, it was better than no aid at all.

Nevertheless, after man opened his eyes, it behooved him to use them to the best possible advantage. He evidently did not do this in many cases, but kept on in the old way, hanging doggedly to a flimsy raft, refusing to board the life boat which continually floated near him.

At this late date, I ask a momentous question: have we not, times without number, mistaken the direction of an action? I see ahead the rocks of incredulity and know them all too well. They loom so large in questions of a certain kind they often deter the most stout-hearted, but a decision must be made at some time. Why not now? Surmise strengthened by interpretations of available facts must always keep far ahead of actual proof.

Man's origin has been to me, ever since I can remember, a question of intense interest. I might say that as I grew up, it became one of anxiety. This was because I felt it an easier thing to solve than the still greater riddle of his destination, yet the solution of the one ought to throw great light upon the solution of the other. I have been like the child, afraid of the storm, who puts on a bold front, but now that the commotion in my mind has somewhat subsided, I willingly confess the previous condition of agitation.

The direction of an action is a fundamental factor in almost any problem. The answer to the question of that direction, in this particular case, is the burden of this argument. I can well conceive that for ages man thought, if it interested him in the least, that he really saw things, in the sense that the eye is not a receptive organ. He doubtless made up his mind that light travels from the eye

to the object. I heard just the other day a question asked, which showed plainly that the questioner thought this very thing. So, it is not what man used to think, but it is what some of us think at the present time.

However, we need not view this in a Pharisaical mood. Every one of us is guilty of the same thing in principle, if not in this particular way. We twist and turn things, until they are sometimes turned completely around. I would not dwell so long here, if it were not so very important.

Have we not progressed far enough to summon all determination, and to begin at least to search for our true bearings? If we read the compass and find good reason to believe that we are on the wrong course, we should immediately set about making a change. Even though we cannot be sure the changed course is exactly the right one, if we know the new one to be no worse than the old, we make no great mistake.

We shall then have the advantage inherent in the exploration of new routes, upon which there may eventually be found unfailing guideposts, if we would follow their directions, when found. Although this would be the case, we have been traveling in a small circle so long, that it is with failing heart we bear down on the rudder for an outward turn into new waters.

Some of us have become convinced there are no new waters, but we have only to elevate our observation post a little to find that the great enigma becomes more and more extended in area, and if we sound the depth, we find it greater also in that direction. So, there are new waters, ever new.

Man is partially shut off from correct perceptions by age-old, wholly inexplicable and inexhaustible sources of egotism, in its narrowest and meanest meaning. He has other much more important and very real limitations from the fact that he is literally an unfinished work, the foundation having been little more than laid. The process of building is going on to-day in greater degree than it has ever gone on in the past; the debris of odd ends and chips piles higher and higher, seemingly with the tacit consent on the part of everybody, or the refusal of anyone to clear it away, though it threatens to block our mental highways. Yet it would require but a slight change in our mode of thought to remove the obstruction, to plow through it, or to go around it.

We have inherited a passive mode of thinking in certain matters, a sort of involuntary thinking, from our anthropoid ancestors, it must be. We have contented ourselves with that, although long ago we were presented with the priceless gift of reasoning power, or with the privilege of selective conduct, however narrow the limits of that conduct may be. The result of our shiftlessness is a long train of evils, consisting of half-knowledge and superstition.

Thus, we are cocksure that man was made in the image of God, while all the time, without stint or lay-off, without the slightest reason, we have vehemently denied that any other creature was so made. To my mind, this attitude is one to be abhorred and fought unceasingly with the greatest vigor. Considered in the false meaning which we have given to it, it is degrading, inimical to all our best thoughts. It can be the result of little else than egotism running riot, with a plentiful mixture of blind, willful perversity.

Whatever man is now, or will be at some future time, he came into being as only one of the products of the living world. He grew up to fit into a niche in nature; nature moulded him, just as it did all other creatures. It is true out of do-or-die necessity he learned to use advantageously some things found about him, but he was not alone in this; so did other creatures.

If anything was created for his especial benefit, we have no means of knowing it; the facts do not indicate it. If it were done all over again, a much superior being might result. In some respects he has won the race, but at this time this is about all that can be truly said. With the aid of gifts bestowed upon him, the gap between man and other creatures may grow wider and wider (some have dropped out altogether), but originally the racers were composed of homogeneous material, assembled on the same loom by the agencies of the same Weaver.

I fear we put the cart before the horse when we conclude that the world, or any part of it, was made for man's exclusive use. The world was not made especially for man, but it has been used as the proving ground for a great experiment. Man is one of the instruments which survived the test, and is, at least in some respects, the best.

Man simply had to be made so that he would roughly fit into the world, though he is not yet completely adapted to the part. There are pests that prey almost exclusively upon him, or seem to. Why not conclude that man was made for them? I believe that it could be proved, if necessary, that he was not the last thing created—or woman either.

We may eventually find our place in nature; we certainly have not found it yet, or should we say that we know well our place, but are most unwilling to accept it? As for man's origin, he has no more right to call it divine than has the crawling worm a valid claim to the same distinction. The stately oak is of an origin divine no more than that of the poison ivy branch clinging to it. If we are perfectly sincere in the matter, why not adopt that most pleasing of beautiful thoughts: all creatures were made in God's image. Exalt all, or exalt none, for all have a similar origin. We are speaking here, however, of man's beginning, not of his ultimate destination.

We must abandon the belief that man was made in the image of God, else include everything that lives, in order that we may escape the very rightful accusation that we have seized both horns of the dilemma. Again, there are those who discuss the question just as knowingly as though the matter of the appearance of God were fully settled, with nothing left to do except to look at the one and then at the other to observe a most striking likeness. If I have ever read words to this effect, I have forgotten where it was, but the idea sounds familiar. Anyway, it fits the case so well that it will bear repeating again and again. Although in one sense it has little meaning, the expression as used by us has a very potent meaning—the sole one of self-exaltation. It is to this plainly implied meaning I so strenuously object. Out of idealization, used in the right way, has come untold good. If we will only broaden our views, this right use of idealization will become a habit. The defect of egotistical narrowness will be left far behind, like the plica semilunaris of man's physical body.

Full credit must be given to man, however, for finding, perhaps by mere accident, perhaps by divine intention, some advantage to which he was able to cling until his mental wings became full-fledged, thus enabling him to soar far above all other creatures in certain mental capacities, but not in all.

While I am on this subject, I may as well explain that my dog can follow my tracks for miles. He will go through the same maneuvers which I have made for testing him; I have seen him do this many a time. Is this ability a form of intelligence, and have I this ability? The homing pigeon, the horse and other animals, can find their way home easily, under conditions that would completely baffle me. Call this ability what you wish, and make any explanation, these creatures possess it in a degree which transcends anything man is capable of. Turn the question around, and ask yourself if you would consider it mental ability if you had it, and they did not. It is one of the purposes of this argument to show that it is mental ability out of the same great reservoir as any other ability possessed by any creature.

I assert, however, that although man may have been selected late in his career as the chosen one, the Divinity who made that selection and the object of that selection may be two different entities; they should not be confused. Divine selection for an apparent purpose, even though that purpose be a large one, does not carry with it the privilege of assuming our own divinity to the total exclusion of all else in creation, at the very least until we are in a far better position to judge than we now occupy. I insist upon making a point of this, and for a very good reason, which I now present.

THE UNIVERSALITY OF LIFE.

The hypothesis is: An impluse, coming from without, will manifest itself as life wherever there is a suitable field; any form of life connotes intelligence, which increases with enrichment and enlargement of the field.

This assumption enables us at once to throw off the great, choking incubus of egotism and pseudo-piety blocking our progress toward a better understanding, both of our origin and of our destination. Considering facts in the new light, we are able to find for various phenomena explanations which are able to stand upon their own foundations. We do not have to resort to so many improvisations in certain matters now. In short, when we remember that the direction of this force is from without inwardly, we find a state of balance in the affairs of the living world far beyond anything we dreamed of before.

Still, all our beliefs must be mere approximations to the reality, until the great riddle is solved in all its ramifications. Even then, the process of annealing, so to speak, will have to be gone through with. The coördination of all knowledge will not take place until long after *all* essential facts have been drawn down to the point of proof, and the proper perspective obtained for the whole. That is to say, the scheme of all things will have to be observed while working in its entirety, before we shall be able to come to final conclusions.

Any belief whatever is based upon inference. If we see a poke going through undulations as though there were in it something alive, next see a pig come out, and then find

there was nothing else inside which we think could have caused the movement, we conclude, inferentially, that it was the pig that wiggled while in the poke. We arrive at all we know by inference, and in no other way. We do not know exactly what we see. All is inference, narrowed down to a certain stage, which may well be short of reality. I claim for this hypothesis that possibilities in certain directions have been narrowed down thereby.

What we think is a certain unit of matter, we call an atom; a combination of atoms, we call a molecule; and a certain combination of molecules, we call a cell. A combination of cells may constitute what we know as a living creature, but there would be no life unless this outside force constantly breathed into it the breath of life.

Consider the primordial germ. What brought it into being? After one cell was created, did it not require additional energy of some kind to cause that cell to increase to two, and so on? Are we to suppose that no further aid of any kind was required? To these questions answers are positively necessary. We know that we are here, and if man came up from lower levels it becomes necessary to account for the proton, and for its continual improvement, all the way from its very beginning, up to the present stage of development. What caused the upward course? For almost interminable ages, it could not have been so very capable a creature. Its creation and evolution up to a certain stage, was without its volition. We could make even a stronger statement than this. "I need thee every hour" has had a potent meaning all down the ages to this very day, in the very words as written, without having to resort to any symbolical meaning whatever. The lifeless

material that made up the original germ plasm would forever have remained inactive without constant outside help, and every unit of living matter is now, at this very moment, receiving this help, either directly, or indirectly through specialized cells or units.

There are those who would have us believe that nature unfolded of its own accord, after it was once "started," to the prodigious extent in which we find various forms of life. On the contrary, we are living in a great, universal sea of psychic force. The brain, or whatever answers that purpose, utilizes, or catches hold of, this force. Life is the result. Intelligence, as we know it, manifests itself when the material instrument has developed to a sufficiently high level, just as surely as the iron in the fire begins to glow when it becomes sufficiently hot. Our lungs are special organs made for utilizing, or catching hold of, oxygen, which we need every second of the day; food furnishes other material; but for the complete process, still another element, force, law, cause, form of energy, or whatever we wish to call it, is positively necessary and constantly so. We are shot through and through with it, and cannot survive if it is shut off.

Even after movement became voluntary, the progress of life on earth required aid in at least as great degree as it ever did before that. Time and again a higher level may have been reached, only to result in tumbling back, or in standing still for thousands of years. What kept the spark of life alive? It was the same incentive working then as now, and it worked then in the same way, though now its implements, or some of them, have been improved, but not perfected.

Coming from the outside, not a part of the creature at all, in the sense that its aid depended upon the creature's own volition, it furnished a staff to lean upon. Like a life-line, it supported man, even without his knowing it, without complete success sometimes, but still with success according to the law of averages. Nature seems always to be intensely interested in averages. Teeming millions of beginnings are made that one complete, or seemingly complete, creature may be the result; that the strengthening line of life on earth may hold, and be improved upon, as we laboriously plod along on a journey, the end of which is some unknown shore. But the prognosis is favorable; there is great hope for every one. If we have progressed thus far while groping in the dark, we may rely upon a more rapid progress when we learn to help ourselves. The upward climb has been in some respects a bitter struggle. We have not yet thrown off all the scarifying effects of it.

Should the earth by some breath of fire or other agency of destruction become sterile of all life, it would remain so not longer than the time required for the formation of the right combination of those substances we call the chemical elements. This outside force would find the media, if there, through which to work. Behold; life would start anew! Millions of years might be required for another development of the creature world as we know it, but, if given time, develop it would.

To hold an advantage once gained in this long process, procreation, a form of resurrection, was brought forth, permitting the transmission from generation to generation of the improved stock, thus obviating the necessity of going back each time to the foot of the ladder, but, if need

be, nature would patiently do this. If the whole process were repeated, man might not be the result, but some form of life would take his place.

The problem of bringing about transmission was not merely one of transmitting at *random*. We are born and grow up to maturity in a few years, but this growth is merely a resurrection of the old structure, being a blending of the two patterns of the parents. This is a most striking phenomenon. We even do things according to pattern, which manifests itself as habit. Since doing anything at all implies some kind of mental process, in man's case at least, we must conclude that any mental process which is repeated a sufficient number of times is carried out according to pattern, wondrously complex in lower forms and increasingly so in higher forms. Why need the action be repeated by the offspring itself, when it may have been repeated thousands of times by its ancestors? We have here all instinctive actions, which may be accounted for if we remember that moulds or pathways for this force, if alike, should bring similar thoughts and similar actions.

If the offspring unfolds in exact accordance with the composite pattern of all its forbears, does it not, then, have wrapped up in it all the potentialities of its ancestors? Physically we know it has, barring all the numerous accidents which may befall it. This is the only way we may account for the fact that we have ten fingers and ten toes, or any organ, down to its minutest detail. Are we to suppose that it is by mere chance we have two eyes? Not at all. Nature sets about her work in far too definite a way for this. That is to say, procreation requires transmission in strict accordance with a model upon which thousands of

years of effort has been expended. The continuity of this model is a fundamental part of it and must be preserved.

Here is found the pivot upon which the whole question of evolutionary improvement turns. The life giving principal seems to encounter an almost impenetrable barrier, unless it travels along a beaten path. It is able to act quickly enough in getting the physical material together (it does so in a very few years in the growing child), up to the point where this path ends. The augmentation of this path is what required time, aeons long. The influence which accomplishes this must be the direct agent of the Great Pioneer. But this agency may be only a natural law, not God at all.

The acceptance of this hypothesis does not require the conclusion that all forms of life on earth, necessarily, came into being at the same time, or that the agencies producing original life have been shut off from carrying on the original process. If there were numerous foci, the simplest forms of life would have been much alike, anyway, being created out of the same material in the same way, thus forming a homogeneous base. After this was laid down in the lowest forms, the similarity of structure in higher forms could be accounted for by intermixture as soon as dual sexuality had been established. This would cause coalescence of many individual lines of development wherever mixtures were possible. Certain lines progressed faster than others, either in being favored by circumstances or by having an earlier start. So there were gaps left which could not be bridged over. Even now we have numerous examples of sterility in an offspring which is the product

of mixed breeds. All trickled down the ages, gathering here and there an increment, losing here and there a characteristic which Nature no longer found of use.

Looking at a superb specimen of wild animal, we behold one of Nature's blind ends; she has gone as far as possible along that particular route. The pitching of a permanent camp has taken place, unless there occur profound changes in environment. This might bring surprising changes in other ways.

It matters little what we believe unless we have some basis for the belief, but there are facts too plain to be ignored by any who are in the least interested in the matter, one way or the other. If we are to believe anything that cannot be verified by actual experiment, it is that the earth was at one time sterile. We are here, and are conscious beings. We have fought out one question and decided that man came up from lower levels, no matter how greatly our individual opinions may differ as to just how low those levels were.

My own opinion is that a wisp of the very same stuff that fills the universe breathed the breath of life into infinitesimal portions of several substances, combined in such a way that this influence could manifest itself, causing them to bud into a creature more delicate than anything of which we have definite knowledge. We have no means of knowing the time required for the "sprouting" of even a simple cell from sterile matter. To bring it up to the point where we could discern it, might require untold ages.

Should man be able to combine a number of cells, consisting exactly of the substances, in their exact proportions

and in their order, contained in the naturally combined living cells of any creature, the mechanism would still lack life, but I firmly believe that life would appear. We should have a living creature, although all the cells were put together in the laboratory.

This is said with the full knowledge that its falsity cannot be easily proved. Like the negatives of many other beliefs we encounter, the negative of this belief is hidden behind a bulwark of experimental difficulty. I do not seek to avoid finding a negative result if there be one. On the other hand, I would not accept as proof what seemed to be a spurious positive result. I claim no knowledge of the exact way in which this force works. I only claim there is unmistakable evidence that the action is from without inwardly, instead of being, as we have always supposed, in the other direction. God must be here now in exactly the same sense he has always been, and he is working in the same way as he did when there was brought into being the primordial germ.

The plainest lesson this hypothesis teaches is that if this force found means on earth to develop life, there is no reason to believe that it has not done so elsewhere. Furthermore, by judging conditions here, we may form some opinion of life elsewhere. Life cannot exist in great heat here; we must believe that in like form it cannot so exist elsewhere. Under similar conditions we should look for similar life, with much the same flesh, blood and bone, but not combined in the exact forms.

That on myriads of such bodies as the earth, much the same conditions exist as here, is as patent to my mind as anything that is conjectured. The universe is bathed in

sunshine, of other suns if not our own, and the whole is bathed in another force, the life giving principle, just as potent and just as constant.

We long ago learned that our bodies are made up of materials taken from the physical world, and are subject to all the physical laws, which are ever present. Mentally we are part of the psychical world, and, if we carry out the analogy, we must be amenable to its laws, however unfamiliar we may be with them. These "laws" must be as potent as anything we know in the physical world. They must be acting upon us this very moment in the same way they have always acted, from without inwardly, and not the other way at all.

To a question regarding the right direction, we have all along said "no", when the very word we should have used was "yes." If we could have turned anything more completely upside down, I fail to see what it could be. It looks as though we were not going to save one thing from the wreck of our old-time lordliness, for this it was and nothing more.

We have been very much like the man who thought himself rich, but when the time came to sum up, it was found that an impartial inventory showed plainly that he had far overvalued the "personal" equation. In short, we would all be hopeless bankrupts if we were forced to pay our just debts, for the reason that all the time we have been receiving substantial and indispensable aid from Home, without knowing it, and, consequently, without crediting the right account. This unknown, unseen but helping hand leads us on. We have narrowly supposed that we ourselves create the power to think, whereas we are mere blind instruments.

Some all-pervading impulse of intelligence, containing infinitely more than *we* get out of it, must be in existence. We ignore the indisputable evidence of plain facts, when we once suppose that constant outside help has not been required to build a living universe. We have been much like the fish that knows nothing whatever about the existence of two invisible gases whose union was required to fill the little pond in which it lived.

MAN'S POTENTIALITIES.

Man occupies only the environs of his potentialities. If we are to admit there is anything in the theory of evolution, each succeeding generation holds a modicum of improvement over the last, i. e., a certain part of all experience once gone through with is never lost. If we are reluctant to admit this on the psychical side, and we certainly need not be, we simply must admit it on the physiological side, because, although man may at one time have been part and parcel with the star-fish, he is now a star-fish plus considerably more. At first came the simple cell, then those more and more complex. The transmitted part of each generation contained the parental potentialities. To this was added whatever increment the offspring attained, and so on. While some particular offspring may not be the equal of the parent, it is idle to suppose that a thread of improvement has not run through the whole.

This is the only way we may account for anything except the simplest form of life that could be developed in one lifetime. The life of a single individual could not be prolonged a sufficient time to acquire all the improvement.

It became necessary, therefore, to find some way in which the offspring could carry over the improvement acquired by the parent up to the offspring's birth.

In considering man's potentialities, we come to a subject which has been misrepresented to such an extent that we seem now to be in a position out of which we are able to extract very little of value. This is the subject of dreams. Notwithstanding all that has been written about them, we have little substantial knowledge. It is hard to see why so much time is spent trying to interpret dreams. The mere fact that we have dreams, visual, auditory, or any other kind, is the important thing. If we could throw aside all effort to say that this kind of dream means this and that kind of dream means that, when all the time we are conscious that we do not know what we are talking about, and then set about trying to find out why we have the power to dream anything whatever, we might come nearer to learning the truth. Why I dream of flying, instead of dreaming that my grandmother is ill, is a matter which can wait a while for solution.

For aught we know, the *ability* to dream may indicate that man is some day to be able to retain impressions with a vividness, in waking moments, possible now only in dreams. Nature can be accused of putting out advance guards, as she marches on, and of making minute explorations into every bypath, as if searching, ever searching, for something which will be of use to her, and of adopting the most advantageous result as a future plan. Forty thousand years from now, say, man may gain and retain all impressions with a vividness which is now quite impossible. It would be interesting to try to determine whether dreams

show a tendency, from generation to generation, to retain continuity, or to break up more and more into smaller parts.

We are limited in capacity to think, only because we have no facilities to accommodate a larger portion of some unknown whole. This brings us to the necessity of explaining the mental activity of the prodigy. Prodiges themselves seem to be no more competent to judge of the way in which they arrive at conclusions, or why their memory is abnormally keen, than those who think in the usual manner. We can explain the feats of the mathematical prodigy in no other satisfactory way than to say that he is simply reading his answers. We should all be able to do the same thing if our memories were keen enough.

The new idea is that, as time goes on, the windows will be opened wider and wider and that increased intelligence will enter. Sex was an invention made necessary by the absolute need of mixture. The lowest forms of life need no mixture, hence no sex in the true sense; one individual is much like another. But when development had taken place in many different directions, and had reached a certain stage, mixture became requisite. Without it, individual lines of development would have become top-heavy, only to fall of their own weight. With the intermixture each offspring secured an opportunity to inherit certain characteristics from the composite qualities of all its forbears. The result was a concentration of many qualities, made strong and forceful by a process much like kneading.

The bringing forth of a genius indicates that there was found in his particular case just the right combination which better served for the expression of some particular talent. The genius now will later be surpassed, if not soon, then later still. To Nature a thousand years is nothing! In this way life is to advance, step by step, to higher levels.

We are the result of millions of years of unceasing endeavor. Even from the elevated stage we now occupy, the goal of perfection is a long way off, but the universe lies before us where to chose, if we will make the most of it. The surprising part to me is that we so deliberately shut our eyes when the Great Emancipator beckons us on. He calls for volunteers; we wait for the draft. Before acting we seem to expect the appearance of sash, sword and epaulet, or other regalia of pompous glory, which even man has begun to discard for the good of the service. This General wears none of these trappings, but he does lift up the shield of Faith, Hope and Charity. We should resolutely push forward.

INTELLIGENT CONTROL.

Spiritually, all creatures are psychic leaves growing upon an ever verdant, everlasting psychic tree, but this tree is not necessarily God. I repeat this, for it is an important matter. We may stand in relation to this force just as we stand in relation to gravitation, light or electricity. We do not have to say that these are separate parts of one great whole, or that they are entirely at variance. We have no more reason to believe, however,

that what may be only a natural law is God, than we have reason to believe that a man-made law is man himself.

We simply have no conception of what God is like; it is idle even to pretend we have. Such a pretension has no semblance of connection with true religion; furthermore, it does much harm. It is a figment of the imagination for which dogmatism is entirely responsible.

On the other hand, the belief in an Intelligent Control of the universe is not based upon cant, but upon sound common sense; even the child can understand the reasoning for this belief. It should not concern us greatly whether there be one Great Cause, or a dozen lesser ones. We simply know nothing about the matter. Besides, this is a question the answer to which is not at all pressing, for the results, so far as we are concerned, are the same, regardless of the exact way this control is brought about. Our wishes would not change the reality one whit. If we are ever to know the truth, it can be determined when we are in a better position to judge. We should sweep away all our old, inadequate conceptions, and begin patiently to rebuild on a firmer foundation. There is an abundance of material to use for the new structure. Nature always builds patiently, laboriously, skillfully; are we so great that we may disregard a lesson of Nature?

The cellular structure of the brain, or whatever answers that purpose if the creature has no defined brain, merely supplies an adequate structure through which this Control may manifest itself in that particular manner which we call life. The force is constantly there, but its presence is not made known unless it be revealed in the very few ways

our narrow perceptions are able to take notice of it. The manifestations are feeble or of greater power, according to the richness and extent of the field. When the strength reaches the point where it can turn and observe itself, so to speak, we have a conscious being. In the case of man, there is now a superstructure, which permits of reasoning power. There is no perfect brain; to this extent, this control is shutout. We catch only parts of the complete thing. It is as ever present as the sunshine above the clouds.

Prepare the field; lo, life appears! Despoil the house, the spirit leaves, but the dweller in the house and the house are two different entities. Man is no exception in Nature, though he may be a very important personage, now far ahead in the race. All the manifestations we know as life and intelligence, whether in man, bird or beast, are the results of the workings of this Intelligent Control.

The brain is a habitat only, and the furnishings vary in the greatest degree. The tenant can manifest itself only with the implements at hand. The power to think is limited by the individual arrangement and texture of that particular brain upon which this force works. We are inferior media, and thus have limitations which Nature is doing her best to overcome. Are we doing our part? So far from it, it is great wonder that we have accomplished so much. We are bolstered up and carried along in the right direction in spite of all we can do. We ought to find our place, accept it, throw off our thick coats of conceit, and do our turn at the great wheel.

CONCEPTS OF THE IMPOSSIBLE.

While gazing upon some wild beast, or contemplating some catastrophe, do not gain the erroneous impression

that God planned either. A pebble at the top of the mountain slips, displacing enough material as it descends, to produce a devastating avalanche; this is the combined result of a maze of possibilities. So the lion was developed as a finality of a still greater number of possibilities, as he came down long, long periods of time. Both the lion and the avalanche are the results of inexorable laws. God planned the exact nature of neither, but he did make a law, or what we are pleased to call a law, of gravitation, and did make a law that life would develop in some form if an opportunity presented itself.

Whatever God may be, we must greatly revise our belief that he can do all things, or nearly all, if we are to interpret the evidence before us; no more can be done. He, whose existence we cannot possibly doubt, but of whose actual appearance we have no conception, devised a scheme of things, governed by agencies which we call natural laws. Consider the smallest particle; it is unnecessary to discuss here what that is. We know that matter is divided. If we know of no agency to divide it beyond a certain point, we cannot say there is no such agency. It is not necessary for the purpose of this argument to say that it *is* divided beyond a certain point, but if there is a smallest particle, let us keep one of these in mind. If there existed in all the universe only one such object, it would doubtless have a very uneventful career, but there are countless others and they are all supposed to be in rapid motion. In their jostlings, they fall seemingly into certain arrangements, governed by apparent laws, but some of these act indifferently, or not at all, unless the particles are brought into close relation.

Now, the laws of nature, at least those we know the most about, act apparently without consequences. When the results are harmonious, that is, when they suit us, all is well. That results for the most part *are* harmonious, is a foregone conclusion, else we would not be here to know anything about it. When the results are sometimes disastrous, we foolishly blame some evil spirit. It would be nearer the truth to say that with such complexity of laws, all cannot be made to work in perfect harmony. They are what they are because of the impossibility of making them something else, and, at the same time, having them do the work required.

If there are to be aggregations of matter, some form of cohesion is necessary, yet this characteristic may work havoc with some other aggregations of matter, for instance, human beings. Even God has found no way out of the difficulty. The workings of these laws conflict in a measure and he is powerless to prevent the consequences, while still retaining their average advantages. Life is a highway upon which irresistible forces travel, ever present, ever working, and on this highway, there are accidents, the avoidance of which is impossible.

If a law be changed, it may bring advantages over the original, but there may be greater disadvantages, whether we can foresee them or not. If Nature teaches us anything, it is that she is continually searching to make changes that will be advantageous for her purposes, yet as free as possible from defects. There may have been many diseases during man's life on earth of which we know nothing because we long ago passed through the mill and came out—immune. We observe change, change, and still change.

If improvement, or immunity, be the object of all this, we must admit imperfections now. If God be omnipotent, why any imperfections at all? We turn aside into the dark bypaths of superstition, when we attempt to explain inimical happenings as chastisement. There is nothing to bear us out in such superstition, but there is ample proof to the contrary.

Whenever I hear it, I am always at a loss to understand the expression that all is for the best. This is one of the great stumblingblocks over which we continually fall, yet it can be avoided if we look with determination to see the truth. A child plays around a bonfire; its clothing catches fire and the child burns to death. If all the books in Christendom had been written for the purpose of proving that God "willed" that the child should burn, and I had the ability to read and understand all that was written, I do not see how I could accept such a verdict. It is so contrary to the natural conclusion that it is beyond belief. We have deliberately gone out of our way in search for a bogey. The child, with its ability to move freely about, and the fire, were both the results of the workings of natural laws. That God brought the child and the fire together, I do not believe. The accident occurred by reason of the collision of forces, beneficent in themselves, but harmful to life when combined. You may say: "It is God's will," but I prefer to base my faith upon a belief that imperfections exist because impossibilities exist, and for no other reason.

Death is not a punishment, but it is impossible to devise a machine which will not wear out. Procreation is an acknowledgment on the part of nature that the prevention

of death is impossible. The continuation of life consists of the replacement of one cell with another of like structure, but, unfortunately for us, the action upon each succeeding cell is not quite like that upon the previous one. Indeed, if each new cell could be used just as efficiently as its predecessor was, we should never grow old. Our power to extract from the new cell its full worth, decreases with our age. The machine slowly becomes clogged with the residue left over from previous reactions. If all the ash could be eliminated as thoroughly as it is at the highest peak of our vitality, that condition would continue indefinitely, but the ash finally accumulates to such an extent it chokes the furnace fires. Each individual cell falls away from all the others, each smeared over with dross from which it is unable to free itself, until it has gone through the process we call decay. It so happens because it is impossible for it to be otherwise under similar conditions. If all things were possible, would nature bend all her efforts toward a certain goal in an indirect way, when the same results could be attained by the very much more direct route which could be utilized if we could be made to live always? As difficult a problem as transmission appears to us to be, its solution must have been far easier than the devising of a process that would prolong man's life indefinitely.

We come to the conclusion that God is not omnipotent, for the very good reason that Nature seems always to do the best she can; there is every indication that there is an impossible. If God works through Nature, we must accept the handiwork as being the result of his very best efforts. If we admit an alternative, we must then fall back upon the idea of dual influences, one beneficent, one malignant.

The savage believes, when illness appears, that some demon has taken possession, whereas we think the physical man has been weakened, or, what amounts to the same thing, a greater strain has been placed upon the body. His conception is one of an inimical agent, while ours, probably much nearer the right one, is that there is simply an absence of any agency at all, to that degree which represents the difference between the man well, and the man ill.

This, however, does not mean that there cannot be clashes between two forms of life; for instance, the onset of disease germs upon the human system. From the standpoint of disease germs, or of other creatures living parasitic lives, their actions indicate only the carrying out of tendencies as innocent as many of ours. These tendencies were given to them in various forms, just as tendencies were given to us. All creatures possess many of them in common. The natural desire all creatures have for food of some kind, causes many of them to turn upon each other. The grass could cry out that the ox eats it, and the ox could cry out that we eat him, and so on.

THE BRAIN AS AN IMPULSE GATHERING INSTRUMENT.

What induces the circulation of the blood? If we assign the heart's action as a reason for this, then what induces the heart to do its work? When we have accounted for the heart's action (the heart contains the essence of an independent action of its own), by saying that it is

influenced by the brain, then what incentive has the brain? Here, unless we admit there is an outside influence, we begin to resort to involved explanations.

When we have looked hard for a loophole to escape the acceptance of this hypothesis, we might examine one or two striking features of the brain itself. Why the sulci, if not for the purpose of obtaining greater surface in the narrow space available? The grey matter, which covers the whole surface of both cerebral hemispheres, even dipping down into the fissures, is very rich in nerve cells. Below the protective integuments, just under the pia mater, we come to what is known as the molecular layer of the cerebral cortex. Here there are found minute nerve endings which might be said to run parallel with the surface. The position is something like that occupied by the ground vine with relation to the ground. From deeper parts the processes run up into the molecular layer as finer and finer branchings, nearer and tangent to the surface.

We may readily account for the optic, the auditory, the olfactory nerves, etc., but why so many nerve cells in such very extended portions of the brain where there are no special sense organs which we have heretofore recognized? Why do they lie in just the position that would best serve the purpose, even according to our crude notions, of gathering impulses from the *outside*?

When we have considered this, let us examine a somewhat similar process in the cerebellar cortex. Here also a special kind of grey matter covers the surface of the cerebellum, and follows the peculiar plaits or folds into

which it is thrown. Why the cells of Purkinje, with their intricate, arborescent formations? They, too, are quite numerous and are located in exactly the position that would best serve the gathering of impulses from without. Are we to ignore completely these plain facts?

It has long been known that nerve-fibers serve as conveyors of impulses, but what is the nature of these impulses which may be so easily carried along these conductors? We know that certain impulses are carried, but of what do they consist, and where does the prime moving power which sets these known impulses in motion, and keeps them in readiness to act, come from? Are we sure no impulse from *without* comes down these tiny spires? This is the great question.

In the case of the tree, why such multiplicity of leaves, with all their extremely delicate fibers, if they do not catch for the tree something needed for its very life? May not there be an impulse entering in addition to sunlight? If all this is necessary for a mere tree, why should there not be something still more necessary for the life of such complex creatures as we find in the animal world? The greater the number of convolutions, the greater the surface exposed, and the smaller and more numerous the nerve endings, the greater their total gathering capacity. Let us not equivocate. We are forced to say that it is reasonable to believe that the Psychic Impulse *does* enter here. If the creature has no defined brain, then it enters through cells which are homologous with the cortical cells of the gray matter of man's brain.

CONCLUSION.

In the simplest forms of life, this impulse acts in comparatively a direct manner; hence with ease and quickness. In higher forms, where we find so many specialized organs, we conclude this force is indirectly brought to bear upon each individual cell. Thus, if some vital organ breaks down, wears out, the whole structure must perish. Should the surgeon find means of supplying new parts for old, we now see in a plainer way than ever that death from mere old age need not occur.

This hypothesis enables us to explain involuntary actions in a simple way, notwithstanding the great complexity of the mechanism brought into play. In other words, we are able now to account for the fact that the machinery of life works in many ways without conscious effort on our part. We do not now have to believe that something was wound up thousands of years ago, and has been running on, and augmenting at a fearful rate ever since, without extraneous aid. The materials of which bone and muscle are made, if separated by taking away this coördinating power in any way, would have none of the characteristics we call life. That is to say, this force is the coördinating principle.

It enables us better to explain the mental make-up of the insane, why they have thoughts consisting of broken parts, and why mental images are there without the will of the possessor. If we could examine the brain of an insane person in sufficient detail, we might find nothing unusual except a condition which caused the breaking, weakening, or turning aside of this impulse in some way. In other cases progressive disease may be the cause of the derange-

ment. When the ailment has advanced sufficiently to reach the functioning of those parts of the brain governing vital organs, the patient dies.

If this hypothesis has done nothing else, it has proved there is a soul at least in living man. It shows why we have traveled in a progressive direction, both mentally and physically, and why we should continue in the same way, unless we are determined to change it in spite of all that Nature can do.

Our thoughts are influenced by sensations gathered from happenings, but what is a happening. Certainly it is not the complex thing which we usually have in mind, but one of its almost infinite divisions. Thus divided, we arrive at the conclusion that it is the least action that may take place in nature, regardless of our opinion as to what that least action may be. We place interpretations upon a train of these small divisions and call it conscious thought. It is not likely that we have one single sensation, at least part of which has not been encountered by thousands of others, if we make the divisions small enough. By reason of the division, and the difference in the sequence of the units in the train, we do not recognize the complete thought derived from these sensations, as ever having taken place before. Thousands in the past and other thousands to come are to experience parts of the same sensation, though from different causes, in different series, and so with different effects.

No two things can be exactly alike if for no other reason than the impossibility of the necessary coincidence. For the same reason no individual can be the same from instant to instant; nothing occurs more than once. The

individual may seem to be the same from time to time, merely because each reaction is followed by another almost like it, working upon similar material, but not the same material. Although we can never hope to have two individuals exactly alike, the similarity frequent in near relatives bears us out in a measure in the conclusion that if two individuals were exactly alike there would be exactly the same response to the same stimuli. Why any mental resemblance at all, if not for the reason that the same force, playing upon instruments that are almost duplicates of each other, produces like effects?

The somber forest of materialism is behind us. We are gradually emerging into the glorious sunlight of the open country, to find that life, after all, is more than a trackless waste. At best, materialism has always appeared to lack something that is required for building substantially and everlastingly. It was hard to conceive that it could withstand a long-drawn-out struggle. The mere absence of proof that there is a soul in man may be meaningless, yet this absence of proof was the mainstay of materialism. But its conclusions were logical, if we once admitted that the argument included all the essential data. While there may be no "thought without phosphorus," it has never been demonstrated that phosphorus is thought, which simply had to be done, or something done that would answer the same purpose, if materialism was to stand the final test.

Thought is phosphorus plus something, and that something is a Psychic Impulse, which manifests itself as life and intelligence if conditions permit. Henceforth, my religion is to include all creatures, the differences, psychically,

being only in degree, varying with the physical differences. We must look to the enrichment and the enlargement of the media if we are ever to learn what a perfect life is, or what constitutes a perfect thought. We now interpret only a few imperfectly formed impressions.

Much has been written on the evolution of the soul. The soul is the same for all, but the vessel, the little frail container which we each possess for holding our individual part of it, *has* increased in both strength and capacity. If this is what is meant by the "evolution" of the soul, very well, quite so, very well, indeed.

Whether matter by imperceptible degrees fades into spirit as division progresses, or whether matter is simply "coagulated" spirit, we are in no position to judge. It matters little how greatly we may differ on this question, so far as "inorganic" matter is concerned. On the other hand, there is no alternative for the belief that matter in some of its forms is influenced by spirit. If no influence existed, which could bring about a combination with material matter, there would have been no combination; hence there would never have been life on earth. This probably is not denied by anyone, but we have permitted the thought to rest here, as though we supposed a thing, if only once begun, would finish itself. We should face the facts, resolutely refusing to be turned aside. The least action is a complete thing in itself, and to add two least actions requires additional energy. We see the functioning of this additional energy every day in the world around us in the form of life and intelligence.

We are slender reeds, growing in a small field, being played upon by a wind blowing whence we know not, but

we have the consolation of knowing that it is a gentle, constant, bouyant breeze, and not a destructive tornado, unless we make it so. If we are correct in any conclusion, it should be the one that we cannot get more out of anything than there is in it. If we have consciousness, it must come from somewhere, and if we conclude that we ourselves are not the cause of it, it must come from without.

All living creatures upon this world, or any other, are but tiny lights, some intense, some dull, all made to glow by the same Great Current. We live from moment to moment, conscious of the past, by bringing over into each succeeding moment something of the last. This is memory, and memory, in some way, may survive.

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